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W33247
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Robertson Building, 54 Dumbarton Road, Glasgow Gl1 6NU Tel: 44 141 330 5102
Fax: 44 141 330 5102/4878
Email: gbga21@tdcf.gla.ac.uk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            High quality sequence stop: 539
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Davies, R.W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Stewart, G.J., Savioz, A. and Davies, R.W. Sequence analysis of 497 mouse brain ESTs expressed in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TCCCCACAGCTCCCCTGCCAACCGCCTTCCTGGGCAGATGA-CCCACTCCAAGTAGATCT 367
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97179215
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W33247
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/clone="spmp21 16.16"
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Midbrain directional cDNA library in pSPORTI. The library
Midbrain directional cDNA library in pSPORTI. The library
the target nucleic acid population and total cerebellar ss
cDNA as the driver nucleic acid population. The clones are
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96.7%;
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                        Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Seq primer: M13-21.
                                                                                                                                                                  The Institute for Genomic Research 9712, Medical Center Drive, Rockvi
                                                                                                                                                                                                                          Gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Unpublished (1998)
Contact: Lee, NH
                                                                                                                                                              Tel: (301)-838-3529
                                                                                                                                                                                                                   Rat Genome Project: Generation of a Rat EST (REST) Catalog & Rat
                                                                                                                                                                                                                                             1 (bases 1 to 597)
Lee, N.H., Glodek, A., Chandra, I., Mason, T.M.,
                                                                                                                                                                                                                                                                             Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae;
                                                                                                                                                                                                                                                                                                                     Rattus sp.
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                                                                                                                                                                                                                                                                                                                                                                                                           AA944556
                                                                                                                                                 (301)-838-0208
/clone_lib="Normalized rat embryo, Bento Soares"
/dev_stage="embryo 8, 12, 18 dpc"
/note="Vector: pT7T3Pac; Site_1: EcoRI; Site_2: NotI"
                                               /Organism="Rattus sp."
/db_xref="ATCC (inhost):2014020"
/db_xref="taxon:10118"
/clone="REMAL02"
                                                                                                            Location/Qualifiers
                                                                                                                                                                                                                                            Adams, M.D
                                                                                                                                                                                                                                                                                                                                                                                                  597 bp
                                                                                                                                                              Rockville, MD 20850, USA
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ORIGIN

Query Match Matches 6176;

Local

Similarity

100.0%;

Pred. No. Score 6176; Mismatches 0

DB 10; 0

Indels Length 6176;

0; Gaps

0,

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Conservative

0

CGCGGGGAGCTGCCATTGCCCCAGGAGACAACTGTCAAGCTGAGCTGTGATGAGGGACCC

120

60

120

BASE COUNT

1316

/note="unable to sequence region in mRNA" a 1756 c 1634 g 1470 t

SASCSCSDLQPSTAIEEAPGKSCQPKALCPLTVSPSLPRAPVSSAQVP"

LTRALLPPAGTGOTLLLQALVYDGIKSNGRKKPŠPACRNQVEAEVIVHSDFGASKGCP DLHLQDLEPEEPLTAETLPSTSGAVDLSQGADWLGRELGGCQPTTSGPERLTCLPEAA PPSDVEDKAEVHSLMGGSVSDCRGHSKRKISWAQAGGPNWAGSWAGCELPQGSGPRPA

misc_feature

/gene="Nope"

REFERENCE TITLE

AUTHORS MEDLINE JOURNAL PUBMED

JOURNAL TITLE

REFERENCE

Hopkins

gene

/gene="Nope"

/gene="Nope"

/db_xref="taxon:10090" /chromosome="9"

"band D-E1; 24.59 cR from D9Mit143"

/strain="FVB"

/organism="Mus musculus" Location/Qualifiers

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601

GTCCAGGACAGTGATGCAGGCTCCTACCGCTGCGTGGCCACCAATTCAGCCCGCCAACGA 660

CDS

/product="neighbor of Punc ell protein"
/protein_id="AAF65930.1"
/db_xref="GI:7650186"

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translation="MARADTGRGLLVLTFCLLSARGELPLPQETTVKLSCDEGPLQVI"

FECHTKGLPAPIITWEKDQVTVPEEPRLITLPKWLLQILDVQDSDAGSYRCVATNSAR

receptors.

/codon_start=1

/note="immunoglobulin superfamily; related to guidance

source

FEATURES

Direct Submission

Submitted (09-AUG-1999) The Neurosciences Institute, 10640 John Jay Hopkins Drive, San Diego, CA 92121, USA

Salbaum, J.M. (bases 1 to 6176)

0708514

Salbaum, J.M. and Kappen, C (bases 1 to 6176)

Eukaryota: Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Rodentia: Sciurognathi; Muridae; Murinae; Mus

Cloning and expression of nope, a new mouse gene of the immunoglobulin superfamily related to guidance receptors Genomics 64 (1), 15-23 (2000)

QΥ 밁 Qy 망 181 121

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61

241 181 GCTGCTGGGCCTCCGACCAGGGTGACATGGAGCAAGGATGGAGACACTGTACTAGAGCAT 121 CTGCAAGTGATCCTGGGCCCTGAGCAGGCTGTGGTGCTGGACTGCACTTTGGGGGGCTACA 180 61 CGCGGGGGAGCTGCCATTGCCCCAGGAGACAACTGTCAAGCTGAGCTGTGATGAGGGACCC GCTGCTGGGCCTCCGACCAGGGTGACATGGAGCAAGGATGGAGACACTGTACTAGAGCAT GCAAGAA 300 GGCTACA 240 180

Ωy 멍 δÃ 241 GAGAACCTGCACCTGCTACCCAATGGCTCCCTGTGGCTGTCCTCACCCCTAGAGCAAGAA GAGAACCTGCACCTGCTACCCAATGGCTCCCTGTGGCTGTCCTCACCCCTAG 300

480

GTGATGGAGTGCGTGGCCTCTGCTGACCCCACCCCTTTTGTGTCCTGGGTCCGACAGGAT 840

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PELHSEO I I FESLHYCKARGYUNVEYOFAVNIDTTELQVRDLEPNTDYEFYVVA XGOL GASRTSSPALVHTLDDVPSAAPOLTLSSPNPSD I RVAMLPLPSSLSNGQVLKYK I EYG LGKEDQVFSTEVPGNETYQLTLNSLQPNKVYRVA I SAGTGAGY CVPSQMMQHRT PGVHN QSHVPFAPAELKVRAKMESLVYSMQPPPHFTQL SGYKLYMGEVGTEEBADGDREPGGR GDQMDVGPVRLEKKVKQYELTQLVPGRPY EVKLVAFNKHEDGYAAVMKGKTEKAPTP DLPIQRQPPLPPAHVHAESNSSTS I MLEMKKDDETTVKI VNYTVRFGFMGLRNASLVT

 ${ t MCAGLRQSSHREALPGLSSSGTPGNPALYTRARLGPPSVPAAHELESLVHPRPQDWSP}$ DTRYFFKMGARTEVGPGPFSRLQDVITLQETFSDSLDVHAVTGIIVGVCLGLLCLLAC PLTPSTVRLHWCPPTEPNGEIVEYLILYSNNHTQPEHQWTLLTTEGNIFSAEVHGLEŞ YYTSSGEDILIGGLKPFTKYEFAVQSHGVDMDGPFGSVVERSTLPDRPSTPPSDLRLS QIGLQDAGYYQCVAENSAGTACAAAPLAVVVREGLPSAPTRVTATPLSSSSVLVAWER ORFSOEASLTVALRGSLEÄTRGODVVIVAAPENTTVVSGONVVMECVASADPTPFVSW VRODGKPISTDVIVLGRINLLIASAQPRHSGYYVCRANKPLTRDFÄTAAAELRVLAAP

AISQAPEALSRTRASTARFVCRASGEPRPALHWLHDGIPLRPNGRVKVQGGGGSLVIT

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121 CTGCAAGTGATCCTGGGCCCTGAGCAGGCTGTGGTGCTGCACTGCACTTTGGGGGGCTACA 180
                                              110 CGCGGGGAGCTGCCATTGCCCCAGGAGACAACTGTCAAGCTGAGCTGTGATGAGGGACCC 169
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                                                                                                                                      50 ATGGCGCGGACACGGGCCGCGGCTCCTGGTGCTGACCTTCTGCCTGTCCGCG 109
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0; Mismatches Score 6038.8; Pred. No. 0;

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Unpublished
                                                                                                                                                   1319 a
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                                                                                                                                                                                                                                                                                                                                                                                    AISGAPEALSTTRASTAREVCRASGEPREALIMIHDGIPLRENGRWEVOGGGGSLVIT
QIGLODAGYYQCYAENSAGTACAAAPLAVVVREGLPSAPTRVTATPLSSSVLVAWER
PEHHSEQIIGFSLHYGKARGVDNVEYGFAVNNDTTELQVRDLEPMTDYEFYVVAYSQL
GASRTSSPALVHTLDDVPSAAPQLITLSSPNPSBIRVAMLPLPSSLSNGQVLKYK IEYG
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DLDFIQRGPPLPPAHVHAESNSGTSIMLRWKKPDFTTVKIVNTVRFGPWGLRNASLVT
YTTSGGEDLLIGGLKPFTKYEFAVQSHGVDMGPFGSVVERSTLPDRFSTPPSDLRLS

                                                                                                                                 SASCSCSDLQPSTAIEEAPGKSCQPKALCPLTVSPSLPRAPVSSAQVP" 1772 c 1652 g 1476 t
                                                                                                                                                                                        PPSDVEDKAEVHSLMGGSVSDCRGHSKRKISWAQAGGPNWAGSWAGCELPOGSGPRPA
LTRALLPPAGTGOTLLLQALVYDAIKSNGRKKPSPACRNQVEAEVIVHSDFGASKGCP
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                                                                                                                                                                                                                                                                                        PLTPSTVRLHWCPPTEPNGEIVEYLILYSNNHTQPEHOWTLLTTEGNIFSAEVHGLES
DTRYEFKMGARTEYGPGPFSRLQDVITLQKTFSDSLDVHAVTGIIVGVCLGLLCLLAC
MCAGLRRSSHREALPGLSSSGTFGNPALYTRARLGPPSVPAAHELESLVHPRPQDWSP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /translation="Maradtgrgllvltfcllsargelplpoettyklscdbgplqv1
LGPEQAVVLDCTLGATAAGPETRVTWSKDGDTVLEHENLHLLPNGSLWLSSPLEQEDS
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FECHTKGLPAPIITWERDQYTVPEESRLITLENGVLOILDVQDSDAGSYRCVATNSAR
QRFSGEASLTYALRGSLEATRGQDVVIVAAPENTTVVSGQSVVMECVASADETPFVSW
VRQDGKPISTDVIVLGATNLLLASAQPRHSGYYVCRANKPFTRDFATAAABLRVLAAP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /protein_id="BAB19278.1"
/db_xref="GI:11862939"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="DDM36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /evidence=experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          /note="similar to Nope (NP_064427)"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /gene="DDM36"
50. .3808
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /gene="DDM36"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       /note="similar to Nope (NM_020043)~vector:pDDM36ORF"
1. .6219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /db_xref="taxon:10090"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /organism="Mus musculus"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /cell_type="osteoblast"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /strain="C57BL/CBA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Location/Qualifiers
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97.8%;
99.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          L_line="MMC2"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hosaka
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